

(2) (a) MAURITIUS.

†*Lophopsittacus mauritianus* (Owen).**Palæornis eques* (auctorum, *sed quære* Bodd.?).

(b) RÉUNION.

†*Coracopsis mascarinus* (Linnæus).†*Palæornis eques* (Boddaert).

(3) RODRIGUEZ.

†*Necropsittacus rodericanus*, A. Milne-Edwards.†*Palæornis exsul*, A. Newton.

It will be observed that we do not regard *Psittacula cana*, of which we may mention we have now seen specimens from Rodriguez, as indigenous to the Mascarene Islands. Its proper home is Madagascar, whence it has doubtless been introduced, though probably very many years ago.

XXVIII.—*Notes on the Birds of the Lower Petchora.* By
HENRY SEEBOHM, F.Z.S., and JOHN A. HARVIE BROWN.

[Continued from page 230.]

(Plate VII.)

EUDROMIAS MORINELLUS (L.).

The Dotterel is one of the species which we did not meet with during its migration, but which we afterwards found upon the tundra. We saw two pairs on the 26th June at Stanavoialachta, frequenting the low round hills on either side of the bay, and secured specimens. Judging from their actions, we do not think they had, at that time, begun to lay.

ÆGIALITIS HIATICULA (L.).

The Ringed Plover was first noted by us at Ust Zylma on the 26th May. A few were seen and shot at Habariki; and they were found sparingly in suitable localities along the river to Gorodok, where they became rather more abundant, frequenting the sandy tongue of land opposite the town. At

* Diminishing in numbers.

† Extinct.

‡ Barely surviving.

Dvoïnik they were plentiful among the sand-hills and on the gravelly beach, and we occasionally met with them on the tundra some versts from the shore.

ÆGIALITIS FLUVIATILIS (Bechst.).

On the 8th June we obtained a single specimen of the Little Ringed Plover at Ust Zylma. It was identified and shot as it rose from, and again alighted upon, a marshy, hummocky strip of tundra-land near the town. Only one or two other specimens were seen during our trip, one of which was upon the tundra, at the edge of a small lake. It is decidedly scarce, or else a late migrant not going far to the northward in any numbers.

HÆMATOPUS OSTRALEGUS (L.).

Oystercatchers were first seen by us at Ust Zylma on the 26th May, where we also obtained eggs on the 8th June; and we found them afterwards in small numbers up to about 20 miles within the arctic circle. We did not find them on the islands of the delta, or on the shores of the mainland north of that point.

PHALAROPUS HYPERBOREUS (L.).

We obtained the Red-necked Phalarope at its breeding-haunts on the islands as we descended the river for the first time on the 17th June; and the following day we got the eggs on an island opposite Kuya. Afterwards we found them extremely abundant upon all the islands, and in suitable localities upon the tundra, especially at Dvoïnik. During the last week in July at Dvoïnik we found the Red-necked Phalarope in small flocks, consisting of birds in two distinct stages of plumage. The new dress differed from the usual summer plumage in the following particulars:—The bill was very soft and flexible, instead of being comparatively stiff and hard. The back of the legs and the under surface of the feet were pale yellow; the front of the legs and the upper surface of the feet were a grey flesh-colour, whilst in the breeding-plumage the legs and feet were a uniform dark lead-colour, with a faint tinge of yellow on the margin of the lobes. The primaries and the whole of the upper plumage

were bluish grey instead of brown. There was a distinct white superciliary streak over each eye, extending down each side of the neck and almost meeting on the forehead. The feathers on the crown of the head, on the back, including the bastard wings, and on the tail were richly edged with rufous ochre. The red on the neck was entirely wanting; and the dusky band across the breast was broader and faded almost imperceptibly into the white of the belly. The soft and flexible bill certainly indicates immature birds; but, on the other hand, the fact that we caught three young in down, only recently hatched, on the same day, and shot several adult birds in the moult about the same time, and obtained most of our fresh eggs of this species between 20th June and 4th July, points to an early assumption of the winter plumage of adult birds.

TOTANUS GLOTTIS (L.).

We first identified the Greenshank at Ust Zylma by its well-known note, and saw it flying high overhead. This was on the 19th May, when the snow still lay deep in the woods but was disappearing from the higher parts of the meadows along the course of the river Zylma. We afterwards found it abundant at Habariki, frequenting the large marsh in the forest behind the village, and the sides of the numerous pools and marshy hollows which are there found through the woods. We obtained eggs at Habariki on the 11th June. We did not again meet with the species to the northward.

TOTANUS GLAREOLA (L.).

The first Wood-Sandpipers were shot by us at Ust Zylma on the 26th May. They were frequenting the pools in the middle of the town, and were exceedingly tame, allowing us to approach within a few yards of them. They were very common at Habariki, and we shot specimens, which had perched on the tops of the high dead larches, quite 70 feet from the ground. Northward they became scarcer; and between Abrámoff and Alexievka we lost sight of them altogether. Later, however, on the tundra we found a few pairs, and obtained the young at Vassilkova. We did not see any further north than Stanavoialachta.

TOTANUS FUSCUS (L.).

The only place where we saw the Dusky Redshank was along the sides of the great marsh at Habariki, which was doubtless their breeding-ground. Unfortunately we did not procure any specimens, although we fired at them several times. When we saw them they were still going in small flocks. This was in the beginning of June.

ACTITIS HYPOLEUCA (L.).

The Common Sandpiper was far from being an abundant species on the Petchora, as far as we had opportunities of judging; and it was only upon one stretch of the river that we saw or obtained specimens, viz. between Habariki and the Yorsa river. It is worthy of note that, though more abundant in the neighbourhood of Archangel, they were also very locally distributed in that locality (Ibis, 1873, p. 68).

TEREKIA CINEREA (Göld.).

We first noticed this species at Habariki on the 3rd June, and afterwards procured it at Ust Zylma, and traced it all the way down the river, but did not find it quite so plentiful as Alston and Harvie Brown did on the Dvina in 1872 (Ibis, 1873, p. 68). We did not see it upon the tundra. The Terek Sandpiper is extremely fond of running over the bits of floating driftwood on the submerged outskirts of the forest, uttering its musical "tir-r-r-whui."

LIMOSA ÆGOCEPHALA (L.).

Only one specimen of the Bar-tailed Godwit was seen, upon the tundra, near the sea-shore, at Dvoinik. It was extremely shy, and evaded several attempts to get within range, always rising out of gun-shot, and settling again some distance off upon the hummocks. When resting it drew in the neck, the bill pointing in an almost horizontal position.

MACHETES PUGNAX (L.).

A Ruff was brought to us for sale at Ust Zylma on the 30th May; and when we visited the marsh behind Habariki, on the 3rd, 4th, and 5th June, Ruffs were going in small flocks. At the latter locality we procured the first eggs, on

the 12th June. Descending the river we saw Ruffs at their "hills" on the 17th June, and procured eggs as late as the 27th on an island opposite Stanavoialachta. Flocks of Ruffs were seen frequenting the marshy estuary of a small river, on the tundra opposite Alexievka, on the 9th July; and the autumn plumage was fully assumed by the 29th July, when we shot a Ruff at Dvoynik out of a flock in the same plumage in which they are shot in this country in September. Ruffs and Reeves were abundant on the islands, but comparatively scarce, or local, on the tundra.

TRINGA SUBARQUATA, Güld.

During a short half-hour that we visited Dvoynik, on the occasion of our first visit, Seeböhm succeeded in securing a single example in full breeding-plumage, which was all we saw of the Curlew Sandpiper, unless six or seven other birds, which were feeding along with it at the time it was shot, were of the same species. We obtained no definite clue to its breeding-haunts; but from the accounts we heard, conflicting and untrustworthy as these often were, we gathered that marshy plains and swamps of great extent lie along the courses of the numerous rivers and small streams which flow from the Pytkoff Mountains to the sea, to the north-eastward of Dvoynik. Of this fair land of promise we were only permitted to obtain a very distant and unsatisfactory view, as, on the only occasion when we might have seen it had the air been clear, from a height upon the tundra to the north of the inlet, a white mist lay along the distant hollows, completely concealing the features of the landscape. The Curlew-Sandpiper, as we learn from Mr. Bogdanoff, is seen on the Volga and Kama rivers during both migrations.

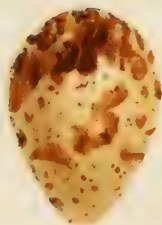
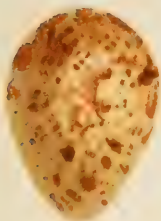
TRINGA CINCLUS, L.

We did not see the Dunlin at all during the time of its migration; nor did we meet with it until the 22nd June, when we landed for the first time on the tundra opposite Alexievka. There we found a few pairs scattered over the grassy swamps, and afterwards saw them in great numbers at Dvoynik and on the Golaievskai islands. At the latter locality immense

flocks were seen feeding at or flying along the edges of the sand-banks when the tide receded. We supposed that these large flocks came from some locality distant from their feeding-grounds; and we noticed that the majority of them arrived from the northward. This was on the 14th July. We are somewhat at a loss to know whence they came, and where their especial breeding-grounds were, unless they came along shore from the westward from the tundras of the Timanskai land. The Timanskai coast, as we were informed, and the whole promontory of Russkai Zavarod are sandy; and this information confirms the accounts of the earlier voyagers (*vide* Hakluyt's 'Voyages,' "Voyage of Steuen Burrough," vol. i. p. 279). Thus it is quite possible that the low-lying Golaievkai banks may be the nearest available and suitable feeding-grounds for the Dunlins and other Waders which breed on the northern parts of the Timanskai tundra. We fired several times into these flocks, but failed to discover any immature examples amongst those we killed, as we naturally expected to do upon finding such large flocks at this season; nor was it, indeed, until some days afterwards that we procured the first young we had seen, viz. on the 20th July, at Vassilkova.

TRINGA MINUTA, Leisl.

The short arctic summer was already far advanced; it was the 13th July; and we had almost despaired of reaching the breeding-haunts of the Little Stint. During the migration of the birds at Ust Zylma, and on our voyage down the river, nothing had been seen of the species, though every passing "trip" of Temminck's Stint had been eagerly scrutinized, and many birds shot for identification. We made a point of shooting every Stint about which we had the least doubt. Clearly there were no Little Stints on any of the islands, nor at any point visited by us between Ust Zylma and the sea; and clearly also they had not migrated past Ust Zylma. One of two things remained for us to do—either to induce M. Arendt to allow us the use of the river-steamer to visit the distant island of Varandai, near the eastern entrance to the



C. J. Fleming del

M & N Hanhart lith

EGGS OF TRINGA MINUTA

Petchora gulf, or lagoon of the Petchora, or to go to the far-out islands called the Golaievskai Banks, which stretch from Cape Kuskoï Zavarod across the north side of the same sheet of water. The former of these plans was considered impracticable, owing to the unsatisfactory state of the only compass, and the danger of certain sand-banks or sunken rocks lying near the course, upon which, on a former occasion, Captain Engel had lost his vessel. The latter plan was more easily accomplished, as it is part of the annual duty of the Captain to visit these far-out islands, and to erect beacons upon two of them, to guide vessels from the sea into the only safe channel.

At 6 o'clock on the morning of the 13th July we were awakened by M. Arendt; and shortly afterwards we were on board the steamer, which was bound for the Golaievskai Banks. At the river-bar, about thirty-four miles from Alexievka, we took the cutter in tow alongside, and after a tiresome navigation of an intricate channel through the Shallow Sea (Sookhoy'e More of the Russians), we landed about midnight upon the island upon the east side of the channel, which is marked in the Admiralty Chart as "No. 4." While the men were engaged in erecting a wooden beacon, the old one having been carried away by the ice when it broke up in spring, we had an hour or two's shooting upon the low sand-bank, and, amongst other things, obtained the old and young in down of the Glaucous Gull and our first Sanderlings. Leaving No. 4, the steamer was obliged to lie-to in the midst of a dense fog, after a vain search for the island known as "No. 3," which is upon the western side of the navigable channel, and upon which another beacon had to be erected. About 4 o'clock A.M. on the 14th July the fog lifted, and we soon after landed. Here the last year's beacon having been only upset, and not, as is usually the case, carried away, we had only a short run upon the sand-bank, and were soon obliged to hurry again on board. As ships from the sea might arrive at any time now, it was of the utmost importance that a third beacon should be erected without loss of time upon the mainland on the south-east shore of the lagoon of the

Petchora, near the Dvoinik (or Twin) Capes. Accordingly the steamer moved off, and, getting into the proper channel, steamed south for the place in question.

About 4 P.M. she came to an anchor opposite the wreck of a sloop, which formerly belonged to the Petchora Timber Company, and which was now lying on an even keel on the shore, about two versts south-west of Dvoinik. We accompanied the men on shore. Harvie Brown went away inland, finding nothing of interest except a wing-feather of a Snowy Owl, and seeing only a few pairs of Grey Plover frequenting the tundra. Seebohm had grand success during that short hour on shore. He had walked along the shore to the north-eastward and came upon a large shallow inlet of the sea, with muddy edges, frequented by many flocks of wading birds; and he returned to the steamer, after a short half-hour's stay at the inlet, laden with treasures. He produced from his fishing-basket first a Grey Plover, then a Snow-Bunting (the first we had seen since leaving Ust Zylma, then a Curlew-Sandpiper (the only one obtained by us), and lastly, and most triumphant success of all, five Little Stints. It may be imagined with what disgust he had seen the last man descend from the beacon just as he had secured these rare birds, and how reluctantly he had turned his steps away from this fair land of promise. We did not then know that we should be able to return; but from that day we strained every nerve to secure the services of the steamer for another trip to Dvoinik, and at last we succeeded. This was not, however, until the 23rd July, M. Arendt up to that time having been uncertain whether the steamer might not be required on what *he* considered more important business. The vessel that was to take us home to England had arrived, and was already engaged in lading with larch timber at Alexievka; and we had put all our belongings on board, so that we might be ready to leave at once on our return. It was arranged that the steamer should land us close to the wreck, along with our small boat, and sufficient provisions for a week, and return for us at the end of that time. Piottuch and our four men came also; so we went fully prepared to have a thorough

search for the nest of the Little Stint, and possibly also that of the Curlew-Sandpiper. We left Alexievka at 10 A.M. on the 22nd July, and landed at the wreck about 4 P.M. After hurriedly bearing the baggage, provisions, &c. on board the wreck, which was in a habitable condition, and which was to be our home for the next week, we started off along the shore in the direction of the inland sea where Seebohm had first discovered the flocks of Little Stints.

We will now endeavour to describe this part of the coast and tundra, which is situated as nearly as possible on the parallel of $68\frac{1}{2}^{\circ}$ N. lat.

Along the water's edge at high tide the shore is gravelly and sandy, and is about thirty yards in breadth, sloping gradually up to the base of the peat cliff which forms the termination of the tundra, and which is about twenty to thirty feet in height. Close to the base of the peat-cliff great quantities of drift wood have been washed up and left high and dry by the tide, and afforded us abundant fuel for our camp. From the top of the bank, or level of the vast tundra, a distant view of the Pytkoff Mountains (piet kova, five peaks or caps) can be had on a clear day. These hills are 583 feet high (*vide* map of the Petchora published by the Petchora Timber-Trading Company), and about twenty-five versts distant from the beacon in an easterly direction, forming the highest land between the Petchora river and the Ural Mountains. The coast-line runs in a general N.E. and S.W. direction; but after passing the inlet it trends more to the northward as far as Cape Constantínovka. On either side of the entrance to the inland sea lie the low points of sand known as Dvoinik or the Twin Capes. The inland sea is shut off from the Petchora Gulf, to the north of the Boluanskai Bucht*,

* The headland between the gulf and the Petchora-mouth, north of Stanavoialachta, is called Boluanskai Noss; but it must not, of course, be confounded with the cape of the same name—meaning, as we are informed by Mr. Lamont, *Idol Cape* ('Yachting in the Arctic Seas,' 1876, p. 134)—which forms the N.E. extremity of the Waygatch Islands, at the eastern entrance of the Kara Gates. The Boluan there mentioned is the place where Purchas relates ('Pilgrimes,' vol. iii. p. 533,

except at their point of junction, by a peninsula, the seaward side of which consists of a range of sand-hills covered with esparto-grass, lowering towards its extremity to a gravelly sandy ridge, which latter, sweeping inland in a circle, comes to a sharp point, and forms a promontory on the shore of the inland sea*. Inside the sand-hills there is a level green meadow studded over with many small pools, and intersected by narrow winding lanes of brackish and stagnant water. Many of these pools are of curious shapes, having almost an artificial appearance, their edges, about a foot in height, being perpendicular and even, as if cut by a spade. At the bottom, below a foot or two of water, is a deep, tenacious, bluish black mud, which, if disturbed, gives off a powerful and offensive smell. Quantities of water-plants grow on the surfaces of some of them, sometimes almost choking them up. It is upon the edges of the pools and on the shores of the inland sea adjoining, that the flocks of wading birds are found at feeding-time. Red-necked Phalaropes settle on the surface of the pools; Ruffs and Dunlins and the little flocks of Stints feed along the edges; and a few Grey Plovers come down from the tundra and run over the meadow. Buffon's Skuas fly overhead from time to time; and Seebohm obtained a fine Snowy Owl, which perched on the gravel ridge. Snow-Buntings were seen here occasionally; but they seemed to prefer the piles of drift wood near the sea-shore and the barer ground. Ducks—Long-tailed and Pintail—with their young, were also found; and Wild Swans were sometimes seen far

A.D. 1611) that "an airie of Slight- [sic] Falcons" was purchased. It was near this also that we found two nests of the Peregrine Falcon. The persistent return of Falcons to favourite breeding-places year after year has been recorded before, notably in 'Ooth. Woll.,' part 1, p. 99; and it is possible that in this instance also the same sites may have been occupied continuously, or at intervals, since the date mentioned by Purchas.

* The geographical position of the inland sea, as shown upon the Admiralty Chart (Chart of Norway and White Sea—Supplementary Sheet) is as nearly as possible $68\frac{1}{2}^{\circ}$ N. lat., and $55^{\circ}55'$ E. long. In this chart even the above-mentioned promontory is delineated with tolerable exactitude.

out on the surface of the waters of the inland sea, or their footprints detected on the damp sand or mud. The sand-hills and gravelly ground were frequented by Ringed Dotterels, and the sea-shore by a few Sanderlings, Gulls, and Arctic Terns.

The inland sea is a large sheet of water connected with the Petchora Gulf by a narrow channel between the two low sand capes of Dvoynik, and is about $2\frac{1}{2}$ versts across in any direction. It is surrounded by a strip of grassy meadow-land on a gentle slope above high-tide mark, which is from 40 to 100 yards in width, except, as already mentioned, on the seaward side, where it is replaced by the level meadow with a different and coarser vegetation. The whole stretch of this sloping meadow is covered with yellow grasses and carices; and here and there over its surface are diminutive plants of dwarf-willow (*Salix glauca*), considerable quantities of wild leeks, and isolated patches of a species of *Sphagnum*. Surrounding this, again, is the tundra, which, in some places, rises abruptly in a great wall 6 or 8 feet high, and in others slopes gently till it meets the meadow. At the latter points the vegetation of the tundra proper is found to blend with that of the meadow. A ridge of bleached and weather-worn drift wood of all sizes—branches, huge trunks, and roots—lies piled up close to the margin of the tundra; and small pieces are strewn over the surface of the meadow. The high-tide mark at the lower edge of the meadow is, in most places, sharply defined, an abrupt bank, a foot or two in height, having been formed by the action of the water. At low tide about forty yards of the black ooze is exposed; and upon this, as already noted, flocks of Dunlins, Stints, and other Waders are usually seen at feeding-time.

The river Dvoynik runs into the inlet close to the sea, flowing from a southerly and easterly direction. It is a muddy still stream, with oozy bottom; and the tide ascends its tortuous course for several versts. The tundra on either side dips sharply down, forming steep banks on the upper reaches; but these give place, near its confluence with the sea, to low perpendicular banks cut through level meadow-land

similar to what has already been described. A smaller stream runs into the inland sea on its south-western shore, the bottom of which is a quicksand, formed by a deposit of fine sand upon the top of the ooze, which quicksand stretches out some distance from its mouth. This little stream rises in a low marshy meadow studded with small pools, and seems to be connected underground with these latter, and does not, as we at first supposed, flow from a range of lakes upon the higher tundra, unless, indeed, there be underground communication with them also.

It was upon the sloping tundra, and upon the sloping meadow, that we found all our nests of eggs and young in down of the Little Stint. Four of these sets of eggs and young—which, for convenience, we will call Nos. 1, 2, 3, and 4, in the order in which they were found—were got not far from the neck of the peninsula, on the slope facing the N.E. This part of the tundra bears a thick growth of arctic bramble (*Rubus arcticus*), which, in some places, scarcely leaves a square yard free of vegetation. The dwarf rhododendron (*Ledum palustre*) is also abundant, but is small and inconspicuous. Large quantities of deep, soft, faded *Sphagnum* cover also a considerable part of the ground; and growing through this are *Carices* (*Carex rariflora* and another) and grasses, and a green star-shaped moss, the latter being the same which is often found on the ground frequented by the Grey Plovers. Reindeer-moss is scarce upon this Little-Stint ground, growing only in patches here and there; but the innumerable small round hummocks, with which parts of it are thickly covered, bear a thin crust of minute white lichen, which, blending with the darker colour of the peat soil upon which it grows, gives a hoary appearance to the higher portions of the slope. In many places this grey hummocky ground is sharply defined, giving place at its edges to tracts of slightly damper ground, which are covered with matted white and green grass, or patches of cotton-grasses (*Eriophoron vaginatum* and *E. polystachyon*, var. *latifolium**),

* We are indebted for assistance in naming a small collection of plants of the tundra, formed by us, principally at Dvoynik, to Professor A. Dick-

bunches or single stems of which are also found growing through the *Sphagnum*-covered portions.

The grey hummocky ground is curiously intersected by narrow natural trenches, about a foot and a half deep, which are probably formed by the snow-water as it trickles down towards the pools and inland sea in spring. These trenches are mostly at right angles with one another and connected, forming raised squares of tundra between. Their edges and sides bear arctic brambles in greater profusion than the rest of the surrounding slopes; and the bottoms are usually covered with grasses and *Carices*, though sometimes bare of vegetation, and showing only the dark peaty soil. Looking at the thick beds of arctic brambles and the dry, conveniently deep, comfortably broad trenches, one could not help thinking of how luxuriously one might rest in them, and—to use the happy expression of a travelled friend, in reference to the “*multebör*” of Norway—“milk the rich juices of their fruits into his up-turned lips;” but, alas! the mosquitoes!!

Having now endeavoured to describe the general aspect of the inland sea and its surroundings, and the more characteristic features of the Little-Stint ground, we propose to go even a little further into detail, and relate the discovery of each of the sets of eggs and young which we obtained, and which, for more convenient reference, we will number 1, 2, 3, 4, 5, 6, and 7—Nos 1 and 2 being young in down, and the others complete sets of eggs. Besides these we obtained another single young bird somewhat older than these.

As already mentioned (p. 297), after landing and depositing our baggage on board and in the hold of the wreck, we went along shore towards the inlet. Here we searched the edges of the pools in the meadow and of the ooze of the inland sea for Stints. Dunlins were abundant; and small “trips” of Stints were frequently detected careering overhead, or wheeling over the water; but they were wild, and seldom offered a fair shot. We went over the whole of the peninsula, and shot

a few birds, but saw no place there which appeared to be likely ground for nests of the Little Stint. It was by that time late in the evening of the 22nd July ; but we had nothing to fear from light failing us in these latitudes ; so we continued our search. Meanwhile Piottuch, and our Samoyede servant Simeon, had also come out, and having crossed over the tundra to near the neck of the peninsula, had sat down on the edge just where the sloping tundra joins the meadow. Seebohm had gone on along the S.W. shore of the inland sea ; and Harvie Brown was a considerable way behind, having diverged in order to obtain a view of the coast-line. As the latter approached, Piottuch shouted and waved his hand. We quote the following from Harvie Brown's journal :—

“As I came nearer I saw a small bird flying in circles round him (Piottuch) and Simeon, and alighting now and again close to them. Seeing this I ran forward, and Piottuch held out two young Little Stints, not more than a day, or at most two days out of the shell. I sat down ; and ere many seconds elapsed the old bird alighted within a yard or two of our feet, uttering a very small, anxious, whistling note. My gun lay on the ground beside me, within reach of my hand ; and I put down one of the young about six inches beyond it. Almost immediately the old bird advanced close up to it, and, uttering its low notes, endeavoured to lead it away. Piottuch then held out the the other young one in his left hand, and it uttered a scarcely audible cheep. The old bird advanced fearlessly to within twelve inches of his hand ; and he nearly caught it. I then shouted to Seebohm to come, being at the same time prepared to shoot the bird if it flew away to any distance ; but no, it only flew about ten or fifteen yards, and then began to sham lameness, tumbling about amongst the little hummocks and hollows, and never going further from us than about thirty paces. Seebohm now came up, and took his seat beside us. The old bird became a little shy, but still flew round us in circles, alighting, as before, from time to time. We watched it for some little time ; and then, at Seebohm's suggestion, I shot the bird, and we proceeded to search for more young or a nest, offering Simeon

two rubles if he found a nest with eggs. Almost immediately Piottuch and I ran forward, he being a little in advance, and in a trice we had three more young, a little older than the last. Within fifteen yards of these last young a bird rose, and again we ran forward together. 'Hurrah!!' shouted Piottuch, 'Hurrah!! Monsieur, les œufs!! les œufs!!'—he was the first to see them—and the next instant we were sitting one on each side of the nest, the birds of both eggs and young flying closely round us or alighting within twenty paces. Seeböhm came up; and we all sat round the nest admiring it; Simeon had also come up; and he caught the fourth young of the second set. And the eggs? Miniature Dunlin's, three richly marked, and the fourth light and more faintly marked, but also just like a variety of the Dunlin's egg. And the nest? Rather untidy, rough and uneven round its edges, very shallow, and sparingly lined with a few small leaves, which may have been plucked by the bird as she sat on her nest. Round it were masses of yellow sphagnum, dark green leaves and empty calices of the arctic bramble, and a tuft of round-stemmed *Carex* (*Carex rariflora*). A little further off were some, now flowerless, plants of the aromatic dwarf rhododendron, bunches and patches of long white grass, and a few single stems of the cotton-grasses. Both birds were shot—the bird with the eggs and the parent of the four young. The turf, a foot square, holding the nest was cut out carefully with a knife, and the mass, including the plant of arctic bramble, the yellow *Sphagnum*, and the tuft of round-stemmed *Carex*, placed carefully in a handkerchief, with a bit of cloth rolled up and put into the nest to preserve its shape as much as possible. The three old birds were put in paper bags, and the bags carefully numbered 1, 2, and 3 (two young, four young, and four eggs). It is worthy of remark that the old birds did not hover in the air above the eggs or young, as Temminck's Stint does, but only, as above described, flew in small circles round us, alighting fearlessly close to us, and never out of gun-shot."

The following day, 23rd July, was a blank as regards Little Stint's eggs, although we offered our men five rubles reward for the nest and eggs, and all went on the search.

Late in the evening of the 24th July, however (most of which day Seebohm and Harvie Brown had spent in exploring the tundra on the north-east side of the inlet, and the course of the Dvoynik river, having punted our small boat along shore amongst the sand-banks, and across the narrow channel, and landed close to a small deserted hut made of logs of drift wood, Seebohm and Piottuch found another nest, also containing four eggs, close to the place where we had got the others. Harvie Brown had gone on along the shore to the wreck, to prepare dinner. This nest was very neatly formed. Seebohm heard a bird utter a low note behind him, and, turning sharply round, said to Piottuch, "C'est le rare *Kuleek*." They saw the bird flying up from its feeding-grounds on the margin of the pools; and shortly afterwards it alighted on the sloping face of the tundra. This bird had probably come straight away to cover its eggs; and a dense mist coming down suddenly, over sea and land, had doubtless quickened its movements. Seebohm and Piottuch watched it to its nest; and after giving the bird two or three minutes' grace, they walked straight up to the nest. The bird was very tame, running round them and coming close up, like the bird of the first young (No. 1). On alighting it preened its feathers, and then walked leisurely on to its nest. It had not apparently the slightest idea of danger. Seebohm shot the bird, cut out the turf with the nest, and brought them, along with the eggs, to the wreck. The eggs are like the others, little Dunlin's all over; and we think we may conclude that the eggs of this species run through the same varieties as those of the Dunlin.

Piottuch also reported another nest containing four eggs, which he had found during the day. He had shot the bird, left the nest and eggs, which he wished us to see *in situ*. Accordingly, about 7 p.m. on the 25th July, Piottuch took us to this Little Stint's nest (the fifth set), about three versts from the wreck. The nest, which Piottuch had carefully marked, was on the sloping edge of the tundra—the neutral ground between tundra and meadow—on the left bank of the

small river before mentioned. The turf was rather different from that surrounding the first nest. The yellow sphagnum was quite absent, though the arctic bramble was still present; and when the turf was cut out it was found to be a dark peaty loam only thinly covered with vegetation, whereas the turf cut out with the first nest consists almost entirely of *Sphagnum*, to the depth of four inches. This last nest was lined with more leaves—dried dwarf willow (*Salix glauca*) and arctic bramble, either gathered by the bird herself or drifted into it by the wind. Piottuch told us that the bird had approached to within a gun's length of the nest, near which he was sitting, and had preened its feathers quite unconcernedly. These eggs show another variety, and are intermediate in colour between the other two sets.

On the 26th we searched diligently over the old ground, carefully following the lines of the natural trenches, and missing as little ground as possible; and after some hours spent in this way, we somewhat unwillingly came to the conclusion that there were no more nests to be found at that place, and that new ground must be visited.

On the 27th Harvie Brown rose at 5 A.M. with the intention of reaching the far side of the inland sea, beyond the little river, and of finding out, if possible, the source of the latter, and also to institute a careful search for more Little Stint's nests. As notes taken on the spot are usually more exact than after-recollections, we make no apology for again quoting from his journal:—

“I struck across the tundra, passed the lakes whence we believed the little river flows, and descended from the higher tundra to a low marshy tract studded with pools, and discovered the source of the river, which appears to run underneath the ground for some part of its course before appearing on the surface. In all this stretch of tundra and bog I only saw a solitary Willow-Grouse, a few Red-throated Pipits, Lapland Buntings, a pair or two of Grey Plovers, and a solitary Red-necked Phalarope. The banks of the river were equally destitute of bird-life until they neared the inland sea. There I saw a few Temminck's Stints hovering over

their young or eggs, a pair of Buffon's Skuas, and a pair of Arctic Terns." [The Buffon's Skuas, I may mention, each carried off a Dunlin out of a flock, and, bearing them away to the hummocky tundra opposite, proceeded to tear them to pieces and devour them. This I watched them do through my glass later.] "On arriving at a point on the river's bank (neutral ground between tundra and meadow) almost immediately opposite the place where Piottuch found the fifth nest the day before yesterday, I saw a Little Stint fly up from its feeding-ground and alight by the side of a small pool of water. After ten minutes spent in preening its feathers, our little friend flew up and again settled on the slope close to an isolated bunch of wild leeks. Here it again preened its feathers for a few seconds, and then, running down a little slope towards me, disappeared behind a low ridge. I watched for its reappearance for three or four minutes, and then walked straight up (about forty yards) to the nest, flushing the bird off when not more than ten yards from it. The nest contained four eggs. The bird settled fifteen yards further off, and then flew straight away, being, I believe, more alarmed at the presence of the black dog, Isaac, which had accompanied me, than at mine. I waited by the side of the nest for some time, seated on the end of a trunk of drift wood, and at last got a shot at the bird and wounded her slightly. She was very shy and evidently alarmed. After I wounded her she flew away and did not return, though I waited quite an hour. This nest (No. 6) was in quite different ground from the others, and was hollowed out amongst loose half-sandy soil, which was sparingly covered with short green grass. Further inland were many plants of dwarf willow. The real tundra was 150 yards distant from the nest. I took occasion to pace the distance as I returned from gathering sphagnum wherewith to pack the eggs. Close to the nest was a quantity of small drift wood, and one stem of considerable size, the former scattered over the meadow, and a few small pieces touching the edge of the nest. The nest was lined with dried willow-leaves and bits of carex, and contained four eggs, handsome dwarf Dunlin's, richly blotched at the large ends.

. About 400 yards further on along the shore, and on the sloping dwarf-willow-covered meadow between the sharply defined tundra proper and the equally well-defined basin of the inland sea, and close to three stranded roots of large trees, I found another nest with four eggs, having watched the bird fly up, as before, from the ooze and alight, and having flushed her from, and watched her again to the nest. This nest was on the top of an isolated clump of sphagnum, through which a few stems of dwarf willow were growing*. In every respect the behaviour of the bird was the same as at the other nests, save that the presence of the dog seemed to cause her more alarm and make her shyer of approaching. She once shammed broken wing, and once flew away to the mud-flat. I lay within twenty yards of the nest, with my back resting against one of the roots, saw her approach, preen her feathers, advance, raise her wings and settle upon the nest. I then put her off and shot her. I afterwards continued for a verst or two along the meadow, but saw no more Little Stints; and I then retraced my steps to the wreck. There I found Seeböhm busy at work preparing the breast of a Bewick's Swan† for dinner, baking it in clay under a roaring fire of drift wood on the beach. It proved not unpalatable aided by stewed prunes, *especially the prunes*, as Paddy would say."

The Samoyede, Simeon, yesterday brought in another young bird in down, a good deal older than those procured before; and this was the last we saw of young or eggs of the Little Stint, although we continued to see the old birds in small flocks both on the shores of this inland sea and of

* Nests found upon the soft sphagnum had every appearance of having been formed by the pressing-down of the moss by the bird's body; but those found upon barer ground could scarcely have been prepared in this way, and were probably *dusted* out by the bird's feet and wings; or they may have been natural hollows chosen for the purpose. The Temminck's Stint, we have reason to believe, sometimes avails itself of natural hollows in sandy localities.

† Which Swan Feodar and Simeon had brought from the big lake at the sources of the Eevka and Erisvanka rivers (*vide* article on Bewick's Swan, *infra*).

another somewhat similar locality about seven versts to the south-west along the shore. We left Dvoïnik in the steamer on the evening of the 30th July, and, after shooting a Peregrine at Stanavoialachta, landed at Alexievka about mid-day. On the 1st August we set sail for Elsinore in the 'Triad,' of Campbeltown, Captain Charles Taylor, a brigantine of 149 tons, laden with squared balks of Petchora larch, and bound for Cronstadt. After a five-weeks' voyage we landed at Elsinore, and there, amongst the first things we did, we telegraphed the news of our arrival to our friends at home, and of our discoveries to Professor Newton and Mr. H. E. Dresser.

TRINGA TEMMINCKI, Leisl.

We got the first Temminck's Stints at Ust'Zylma on the 26th May, and afterwards found the species extremely abundant in all suitable localities, but especially so on the delta. The first eggs were obtained on the 17th June, and the male bird watched to and shot off the nest. Afterwards their eggs were amongst the commonest brought to us by the Zyriani, often more coming in than we could find time to blow. Amongst the many eggs of this bird which we saw there were none at all resembling those of the Little Stint. We found them breeding occasionally at some height above the level of the river, as at Stanavoialachta, where we obtained a nest of eggs on the tundra, on the summit of the steep river-bank, which is there from 100 to 250 feet high.

CALIDRIS ARENARIA (L.).

On the Golaievskai Islands, at the entrance of the Petchora Gulf, we found Sanderlings in small parties associating with Dunlins and feeding on the low wet sand-banks, which are only a foot or two above the level of high tide, and procured a few specimens already beginning to undergo the autumnal moult. Afterwards at Dvoïnik a few more were obtained, but we failed to discover their breeding-stations. Had our visit to the Golaievskai Islands not been so hurried, and had we found time even to walk to the far end of one of those we landed upon, a distance of ten versts, where, we were told, there was higher and dryer ground covered with

grass, it is possible that we might have added their eggs to our list; but the accounts we received, like many other items of information, were most conflicting, one person affirming from personal observation, that the said islands are grass-covered, and another being equally positive that they are not. We cannot but believe, however, that their breeding-haunts were not far distant, whether upon the islands of the Golaievskai group, unvisited by us, or upon the coast east or west of Dvoinik, or upon the coast of the Timanskai tundra, or upon all of these.

In regard to the migration of the Sanderling in the south of Russia, the authors of the Russian work already referred to tell us that it has been seen in spring on the Sarpa, and in the autumn at Kasan.

This species must have an extensive circumpolar distribution during the breeding-season, although comparatively little as yet has been recorded of its breeding-habits. Prof. Newton (P. Z. S. 1871, p. 56) notices a Sanderling's egg obtained by McFarlane near the Anderson river, in N.W. America, which was sent to him by the Smithsonian Institution, a figure of which will be found (*tom. cit.* pl. iv. fig. 2). Shortly afterwards, as we are further informed by Prof. Newton, the eggs collected by the German North-Pole Expedition were sent to him; and among them were some which he could hardly doubt to be those of *C. arenaria*. These he exhibited to the Zoological Society (20th June, 1871), and stated that an examination of the series showed that an egg which Wolley and he bought in Iceland in 1858, was almost unquestionably a Sanderling's also* (P. Z. S. 1871, pp. 546, 547). The eggs obtained by the German Expedition were found on Sabine's Island, east coast of Greenland, in 1869, and have been described by Prof. Newton (Zweite deutsche Nordpolarfahrt, ii. pp. 240-242).

SCOLOPAX GALLINAGO, L.

We found the Common Snipe rather abundant at Habariki

* Canon Tristram also exhibited three eggs, supposed to be of this bird (P. Z. S. 1864, p. 337), along with two birds.

in the beginning of June, and afterwards traced it down the river as far as the head of the delta, where, however, it was scarce, and much scarcer than the next species. We did not see it at Alexievka, nor anywhere upon the tundra. We were not a little surprised when we first became acquainted with the arboreal habits of the Snipe at Habariki, and saw one of these birds perched, seventy feet from the ground, on the topmost upright twig of a bare larch, where, one would have thought, it could scarcely find sufficient foot-hold. With its head lower than its body and tail, it sat there, uttering at intervals the curious double "clucking" note, *tjick-tjuck, tjick-tjuck*, whilst others of the same species were "drumming" high in air over the marsh. To put all beyond a doubt, Harvie Brown shot one in this peculiar position. Nor is the Common Snipe the only bird which, not practising the habit with us, we found perching freely in Northern Russia: the Snow-Bunting and Pipits have already been instanced; and we may also mention the Common Gull, as will be seen under the notice of that species further on. The Curlew also was seen to perch on bushes and trees at Sujma, near Archangel, by Alston and Harvie Brown in 1872 (Ibis, 1873, p. 70). There can be little doubt, we imagine, that this habit was induced in the first instance, by the flooding of great tracts of country by the annual overflow of the rivers in spring, just at the time of the passage of the migratory flights, and, further, that what was originally forced upon them has become, by use, a favourite habit.

SCOLOPAX MAJOR, L.

We shot a couple of Great Snipes in the forest tract behind Habariki, which were the first examples we saw of the species. This was on the night of the 3-4th June. Afterwards we found it not uncommonly on the river and abundantly on the delta, especially between Viski and Gorodok, where we fell in with a large migratory flight on the 17th June. The specimens of the latter which we shot proved to be all male birds. The following day we found a nest containing three eggs on an island opposite Kuya. We did not find it anywhere on the tundra.

NUMENIUS PHŒOPUS (L.).

Three Whimbrels passing over Ust Zylma on the 18th May, were whistled round and induced to alight within fifty yards, when all three were secured. These were the only ones we saw during our trip, though one other was heard calling on the following day.

GRUS CINEREA, L.

Only three Cranes were seen passing to the northward, over Ust Zylma, at a great height—one on the 21st May, and two others on the 25th May.

[To be continued.]

XXIX.—*Notes on the Trochilidæ. The Genera Cyanomyia and Heliotrypha.* By D. G. ELLIOT, F.R.S.E. &c.

CYANOMYIA.

The genus *Cyanomyia*, although not remarkable for possessing species resplendent in brilliant metallic colours of many hues, nevertheless contains some sufficiently adorned to excite admiration, while the pure white and glittering blue and green which compose the dress of the various species cannot but afford pleasure to all who see them. It is a genus whose members are restricted to the western portion of South America and Central America, Mexico being its northern limit, and Peru the most southern country from which any specimens have yet been received. The genus contains seven species, some of which, however, cannot be said as yet to be firmly established, or entitled to specific rank, but more as occupying a probationary state, waiting for passports bearing more satisfactory visés than they can at present bear.

The various species seem naturally to form two groups, viz. those having the underparts of the body pure white, without any metallic colouring, and those having the sides of the neck and flanks covered with metallic feathers of different hues. The first of these groups contains three species, two of which, however, may be but local races of the same form; and the four remaining species comprise the second